

SEQUENCE LISTING

<110> Sumitomo Chemical, Co., Ltd.

<120> Reductase Gene and Use of the Same

<130> 600630-15US (562737)

<150> JP 2003-053568

<151> 2003-02-28

<160> 14

<170> PatentIn version 3.2

<210> 1

<211> 250

<212> PRT

<213> Leifsonia sp.

<400> 1

Met Ala Gln Tyr Asp Val Ala Asp Arg Ser Ala Ile Val Thr Gly Gly
1 5 10 15

Gly Ser Gly Ile Gly Arg Ala Val Ala Leu Thr Leu Ala Ala Ser Gly
20 25 30

Ala Ala Val Leu Val Thr Asp Leu Lys Glu Glu His Ala Gln Ala Val
35 40 45

Val Ala Glu Ile Glu Ala Ala Gly Gly Lys Ala Ala Ala Leu Ala Gly
50 55 60

Asp Val Thr Asp Pro Ala Phe Gly Glu Ala Ser Val Ala Gly Ala Asn
65 70 75 80

Ala Leu Ala Pro Leu Lys Ile Ala Val Asn Asn Ala Gly Ile Gly Gly
85 90 95

Glu Ala Ala Thr Val Gly Asp Tyr Ser Leu Asp Ser Trp Arg Thr Val
100 105 110

Ile Glu Val Asn Leu Asn Ala Val Phe Tyr Gly Met Gln Pro Gln Leu
115 120 125

Lys Ala Met Ala Ala Asn Gly Gly Gly Ala Ile Val Asn Met Ala Ser
130 135 140

Ile Leu Gly Ser Val Gly Phe Ala Asn Ser Ser Gly Tyr Val Thr Ala
 145 150 155 160

Lys His Ala Leu Leu Gly Leu Thr Gln Asn Ala Ala Leu Glu Tyr Ala
 165 170 175

Ala Asp Lys Val Arg Val Val Ala Val Gly Pro Gly Phe Ile Arg Thr
 180 185 190

Arg Ser Trp Arg Gln Leu Phe Arg Arg Arg Ala Gly Val Leu Gln Gly
 195 200 205

Lys His Ala Leu Gly Arg Leu Gly Glu Pro Glu Glu Val Ala Ser Leu
 210 215 220

Val Ala Phe Leu Ala Ser Asp Ala Ala Ser Phe Ile Thr Gly Ser Tyr
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His Leu Val Asp Gly Gly Tyr Thr Ala Gln
 245 250

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 <212> DNA
 <213> Leifsonia sp.

<220>
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 <222> (1)..(753)

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 Met Ala Gln Tyr Asp Val Ala Asp Arg Ser Ala Ile Val Thr Gly Gly

1 5 10 15
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 Gly Ser Gly Ile Gly Arg Ala Val Ala Leu Thr Leu Ala Ala Ser Gly
 20 25 30

gca gcc gtc ctc gtc acc gac ctg aaa gag gag cac gcg cag gcc gtc 144
 Ala Ala Val Leu Val Thr Asp Leu Lys Glu Glu His Ala Gln Ala Val
 35 40 45

gtg gcc gag atc gag gcc gcg ggc ggt aag gcc gcc gcg ctc gcg ggc 192
 Val Ala Glu Ile Glu Ala Ala Gly Gly Lys Ala Ala Ala Leu Ala Gly
 50 55 60

gac gtg acc gac ccc gcg ttc ggc gag gcg agc gtc gcc ggg gcg aac 240

Asp Val Thr Asp Pro Ala Phe Gly Glu Ala Ser Val Ala Gly Ala Asn	
65 70 75 80	
gct ctc gcg ccc ctc aag atc gcg gtc aac aac gcg ggc atc ggc ggc	288
Ala Leu Ala Pro Leu Lys Ile Ala Val Asn Asn Ala Gly Ile Gly Gly	
85 90 95	
gag gcc gcc acg gtc ggc gac tac tcg ctc gac agc tgg cgc acg gtg	336
Glu Ala Ala Thr Val Gly Asp Tyr Ser Leu Asp Ser Trp Arg Thr Val	
100 105 110	
atc gag gtc aac ctc aac gcc gtg ttc tac ggg atg cag ccg cag ctg	384
Ile Glu Val Asn Leu Asn Ala Val Phe Tyr Gly Met Gln Pro Gln Leu	
115 120 125	
aag gcc atg gcc gcc aac ggc ggc ggt gcg atc gtc aac atg gcg tcc	432
Lys Ala Met Ala Ala Asn Gly Gly Gly Ala Ile Val Asn Met Ala Ser	
130 135 140	
atc ctg gga agc gtc ggc ttc gcc aac tcg tcg ggc tac gtc acg gcc	480
Ile Leu Gly Ser Val Gly Phe Ala Asn Ser Ser Gly Tyr Val Thr Ala	
145 150 155 160	
aag cac gcg ctg ctc ggt ctc acc cag aac gcc gcg ctc gag tac gcc	528
Lys His Ala Leu Leu Gly Leu Thr Gln Asn Ala Ala Leu Glu Tyr Ala	
165 170 175	
gcc gac aag gtg cgc gtc gtc gcg gtc ggc ccc ggc ttc atc cgc acc	576
Ala Asp Lys Val Arg Val Val Ala Val Gly Pro Gly Phe Ile Arg Thr	
180 185 190	
cgc tcg tgg agg caa ctt ttc cgc cga cgc gct ggc gtt ctt caa ggg	624
Arg Ser Trp Arg Gln Leu Phe Arg Arg Arg Ala Gly Val Leu Gln Gly	
195 200 205	
aag cac gcc ctc ggc cgc ctg ggc gag ccg gaa gag gtc gcc tcg ctg	672
Lys His Ala Leu Gly Arg Leu Gly Glu Pro Glu Glu Val Ala Ser Leu	
210 215 220	
gtc gcg ttc ctc gcc tcc gac gcc gcg agc ttc atc acc ggc agc tac	720
Val Ala Phe Leu Ala Ser Asp Ala Ala Ser Phe Ile Thr Gly Ser Tyr	
225 230 235 240	
cac ctg gtg gac ggc ggc tac acc gcc cag tga	753
His Leu Val Asp Gly Gly Tyr Thr Ala Gln	
245 250	

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<211> 20

<212> DNA

<213> Artificial sequence

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<223> Designed oligonucleotide primer for PCR

<400> 3

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<210> 4
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<212> DNA
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<220>
<223> Designed oligonucleotide primer for PCR

<400> 4
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<210> 5
<211> 15
<212> PRT
<213> Leifsonia sp.

<400> 5

Ala Gln Tyr Asp Val Ala Asp Arg Ser Ala Ile Val Thr Gly Gly
1 5 10 15

<210> 6
<211> 12
<212> PRT
<213> Leifsonia sp.

<400> 6

Ile Ala Val Asn Asn Ala Gly Ile Gly Gly Glu Ala
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<210> 7
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 <213> Leifsonia sp.

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 cctgaacgag gagcacgcgc aggccgtcgt ggccgagatc gaggccgcgg gcggtaaggc 180
 cgccgcgctc gcggggcgacg tgaccgaccc cgcgttcggc gaggcgagcg tcgccggggc 240
 gaacgctctc gcgccccctca agatcgcggt caataacgca ggcatcggaa tcactagtga 300
 attc 304

<210> 10
 <211> 304
 <212> DNA
 <213> Leifsonia sp.

<400> 10
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catcgggcgc gccgtggcgc tcactctcgc ggcgagcggc gcagccgtcc tcgtcaccga 120
 cctgaacgag gagcacgcgc aggccgtcgt ggccgagatc gaggccgcgg gcggttaaggc 180
 cgccgcgctc gcgggcgacg tgaccgaccc cgcgttcggc gaggcgagcg tcgccggggc 240
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<210> 11
 <211> 26
 <212> DNA
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<220>
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<210> 12
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<220>
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<400> 12
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<210> 13
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<220>
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<210> 14
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<220>
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<400> 14

acaagcttgt gaattcaaca ccagtcagct c .

31